

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a **Minor, Industrial** permit. The discharge results from the operation of a 510 megawatt (MW) simple-cycle combustion turbine electrical generating facility. This permit action consists of updating the WQS, and updating boilerplate language. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Marsh Run Generation Facility
4201 Dominion Boulevard
Glen Allen, VA 23060

Facility Location: 12109 Lucky Hill Road
Remington, VA 22734

Facility Contact Name: Davis Phaup

SIC Code : 4911 – Electric Power Generation

County: Fauquier

Telephone Number: (804) 290-2190
2. Permit No.: VA0091448

Other VPDES Permits associated with this facility: N/A

Other Permits associated with this facility: Air - Registration # 40996
RCRA - VAD000506477

E2/E3/E4 Status: N/A
3. Owner Name: Old Dominion Electric Cooperative

Owner Contact/Title: Davis Phaup / EH&S Coordinator

Telephone Number: (804) 290-2190
4. Application Complete Date: November 18, 2008

Permit Drafted By: Susan Mackert
Date Drafted: February 6, 2009

Draft Permit Reviewed By: Alison Thompson
Date Reviewed: February 12, 2009

Public Comment Period : Start Date: March 12, 2009
End Date: April 10, 2009
5. Receiving Waters Information:

Receiving Stream Name : UTs to Marsh Run
(Outfalls 001 and 002)
River Mile: XGL 000.26 (Outfall 001)
XGM 000.25 (Outfall 002)

Drainage Area at Outfall: < 1 sq.mi.

Stream Basin: Rappahannock
Subbasin: None

Section: 4
Stream Class: III

Special Standards: None
Waterbody ID: VAN-E08R

7Q10 Low Flow: 0 MGD
7Q10 High Flow: 0 MGD

1Q10 Low Flow: 0 MGD
1Q10 High Flow: 0 MGD

Harmonic Mean Flow: 0 MGD
30Q5 Flow: 0 MGD

303(d) Listed: No
30Q10 Flow: 0 MGD

TMDL Approved: No
Date TMDL Approved: N/A

It is staff's best professional judgement that based on a drainage area of 5 sq.mi or less, critical flows will be equal to 0.
6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<u>✓</u> State Water Control Law <u>✓</u> Clean Water Act <u>✓</u> VPDES Permit Regulation	<u>✓</u> EPA Guidelines <u>✓</u> Water Quality Standards <u>✓</u> EPA NPDES Regulation
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7. Licensed Operator Requirements: N/A

8. Reliability Class: N/A

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input type="checkbox"/> TMDL		

10. Wastewater Sources and Treatment Description:

The Marsh Run Generation Facility utilizes three General Electric model 7FA combustion turbines (simple cycle). Simple cycle units are typically used for peak power generation and operate only during high energy demand periods. The facility also includes generators, an electrical switchyard, two storm water retention ponds, water and fuel oil storage tanks, and a fuel unloading area. Equipment, structures and support facilities occupy approximately 35 acres of the total 270 acre site. Marsh Run Generation is interconnected with the Dominion Virginia Power transmission network through a 230-kV transmission line. The switchyard is maintained by Dominion Virginia Power.

Outfall 001

Outfall 001 is the permitted discharge location for the north storm water retention pond. This outfall is also permitted to cover discharge from the demineralized water storage tank, treated process water storage tank if necessary, vehicle wash water, and pressure washing water. These discharge sources are discussed further within this section of the Fact Sheet. Discharge is to an unnamed tributary to Marsh Run. The total area drained is approximately 37 acres with approximately 18 acres of impervious surface. Two internal outfalls, as listed below, discharge to the retention pond prior to leaving the facility via Outfall 001.

Outfall 101

Potentially contaminated runoff from the fuel station area and fuel storage tank area is routed through this outfall which discharges to the north storm water retention pond. Two oil-water separators are associated with this outfall. One treats storm water at the fuel-oil offloading area and a second treats storm water that is accumulated and manually released from the spill containment berms surrounding the oil storage tanks.

Outfall 102

Potentially contaminated runoff from the combustion turbine area is routed through this outfall which discharges to the north storm water retention pond. Three oil-water separators, one for each combustion turbine, are associated with this outfall.

Outfall 002

Outfall 002 receives primarily sheet flow runoff from the switchyard and gas conditioning areas. Discharge is to an unnamed tributary to Marsh Run. The total area drained is approximately 21 acres with approximately 11 acres of impervious surface.

Turbine Wash Water

Washing of combustion turbine compressor surfaces is done both on-line and off-line. On-line washing consists of injecting demineralized water into the turbines when they are operating. On-line washing is typically performed five times per year and uses 145 gallons per turbine for an estimated total of 2,175 gallons per year. Off-line washing consists of injecting a solution of detergent and demineralized water into the turbines when they are not operating. Off-line washing is typically performed twice per year and uses 2,000 gallons per turbine for a total of 12,000 gallons per year. Turbine wash water is captured in individual storage tanks, where it is pumped and disposed of off-site. The existing VPDES permit authorizes the land application of this wash water onto grassy areas at the facility. This option is not utilized by the facility and they have asked that this special condition be removed from the permit during this reissuance. As such, the special condition authorizing the land application of turbine wash water will be removed with this reissuance.

Demineralized Water

Reclaimed effluent from the Remington WWTP (VA0076805 - Fauquier County Water and Sanitation Authority) is utilized for process uses within the facility. This water requires chemical treatment with sodium hypochlorite to address fecal coliform concentrations and is stored in a 150,000 gallon surge tank. This water undergoes subsequent treatment by media filtration and reverse-osmosis processes to make the effluent acceptable for use by the facility. Media filtration backwash and reverse-osmosis reject water are piped to and stored in a 3 MG wastewater holding tank which discharges to the Remington WWTP. Approximately 6 MG of storage is provided for treated (finished) water from the Remington WWTP.

Filtered water that is to be injected into the combustion turbines is further treated by demineralization. Demineralization is conducted on site within portable demineralization trailers. Storage capacity of approximately 2 MG is provided for demineralized water. Once the filtering capacity of each unit has been maximized, the trailer is removed and the waste is discharged off site. Priming of the trailers and final discharging of the water on the trailers is performed on site prior to the trailers being removed from the property. This water is sent back to the Remington WWTP, and is not discharged to the storm water system.

The existing VPDES permit authorizes the discharge of filter prime water and residual water from the demineralization unit to the storm water retention pond during storage tank refill operations. This special condition will be carried forward with this reissuance.

Raw/Fire Water Storage Tank

The existing VPDES permit authorizes the discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank. This authorization will be carried forward with this reissuance.

Vehicle Wash Water

The facility has requested that the discharge of vehicle wash water continue to be authorized in the reissued permit. The facility originally requested this authorization in June 2005 and by letter dated June 21, 2005, DEQ authorized vehicle washing but did not modify the existing permit to include this source.

Facility staff indicated car wash activities would be infrequent and would utilize consumer-level quantities of soaps/detergents. Discharge of wash water would be via Outfall 001. This discharge will be authorized under this permit and is discussed further in Section 21 of the Fact Sheet.

Pressure Washing Water

The facility has requested that the discharge of pressure washing water including the use of washing detergents be authorized as an allowable discharge in the reissued permit. The existing permit allows for routine cleaning of outside buildings as long as detergents are not used. The facility wishes to use pressure washing detergents and as such is requesting this authorization. The facility indicated the primary focus of pressure washing activities would be the outside of bulk storage tanks. The bulk storage tanks are on a level grade and gravel surface which would retard flows. Pressure washing activities may also occasionally include the outside of buildings located on site, but no equipment or combustion turbines will be pressure washed. Any runoff from pressure washing activities would ultimately discharge via Outfall 001. Discharge of pressure washing water is estimated to be less than 1,000 gallons per discharge. This discharge will be authorized under this permit and is discussed further in Section 21 of the Fact Sheet.

See Attachment 1 for the NPDES Permit Rating Worksheet.

A facility schematic/diagram was provided by the facility as part of the application package and can be found in the permit reissuance file.

TABLE 1 – Outfall Description

Outfall Number	Discharge Sources	Treatment	Average Flow	Outfall Latitude and Longitude
001	Storm Water Pressure Washing Water Vehicle Wash Water Demineralized Water Storage Treated Process Water Storage Outfall 101 Outfall 102	Retention Pond	35.9 MG/Year	38° 31' 47? N 77° 45' 54? W
101	Storm Water	Oil-Water Separator	Variable	38° 31' 47? N 77° 45' 57? W
102	Storm Water	Oil-Water Separator	Variable	38° 31' 47? N 77° 45' 58? W
002	Storm Water	Retention Pond	Variable	38° 31' 37? N 77° 46' 04? W
See Attachment 2 for (Remington, DEQ #196D) topographic map.				

11. Sludge Treatment and Disposal Methods:

Marsh Run is a power generation facility that does not treat domestic sewage and does not produce sewage sludge. All process wastewater is discharged to the Fauquier County Water and Sanitation Authority's Remington Wastewater Treatment Plant. All domestic wastewater is disposed of via an on-site leech field and Puraflo pretreatment septic system.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge :

The facilities and monitoring stations listed below either discharge to or are located within the following waterbody: VAN-E08R

TABLE 2	
3-MAH000.19	Ambient water quality station located on Marsh Run at the Route 651 crossing
3-MAH004.18	Ambient water quality station located on Marsh Run at the Route 688 bridge crossing
VA0064726	Mary Water Elementary School
VA0068586	Culpeper County Industrial Airpark STP
VA0076805	Remington WWTP
VA0090603	Culpeper County Elkwood WWTP
VAG406023	Dixie M. Compton Residence
VAG406056	Mark E. Hanna Residence
VAG406074	Martin D. Cogan Residence
VAG406084	Bradley O. Coles Residence
VAG406119	James H. Weeks IV Residence
VAG406145	William A. Bailey Residence
VAG406232	Kastle Greens Golf Course
VAG406311	Eastern Clearing Incorporated
VAG406312	John C. Kandl Residence
VAG406358	Garret Street Property
VAG406365	Culpeper Farmers Cooperative
VAG406448	Parks Exhibition and Flea Market
VAG110110	Crider and Shockey Incorporated – Bealeton
VAR050920	Superior Paving Corporation – Bealeton Plant
VAR050984	Culpeper County Airport
VAR051665	US Greenfiber, LLC
VAR051743	Colonial Pipeline – Remington

13. Material Storage:

A current list of materials stored on site, their use, and management practices in place to minimize exposure to precipitation (cover and/or containment) was provided with the application. This information is found within the permit reissuance file.

14. Site Inspection: Performed by Susan Mackert on February 25th, 2009. The inspection confirms that the application package received on October 14, 2008 is accurate and representative of actual site conditions. The site visit memorandum is located within the permit reissuance file.

15. Receiving Stream Water Quality and Water Quality Standards:**a) Ambient Water Quality Data**

There is no monitoring data available for the receiving streams, unnamed tributaries to Marsh Run. The nearest downstream monitoring station with ambient water quality data (3-MAH004.18) is located on Marsh Run at the Route 688 bridge crossing.

The receiving streams, unnamed tributaries to Marsh Run, are not listed on the current 303(d) list. However, there is a downstream impairment. Marsh Run at assessment unit VAN-E08R_MAH01A00 is listed as impaired for not meeting the recreational use water quality standard. Sufficient excursions from the instantaneous *E. coli* bacteria criterion (3 of 22 samples - 13.6%) were recorded at DEQ's ambient water quality monitoring station (3-MAH000.19) at the Route 651 crossing to assess this stream segment as not supporting of the recreation use goal for the 2008 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, from 1996 through 2004. The *E. coli* bacteria impairment was first listed in 2006.

A Total Maximum Daily Load (TMDL) for bacteria was approved by the U.S. EPA on January 23, 2008. The facility was not given a waste load allocation in the TMDL as it was not expected to discharge the pollutant of concern.

Additionally, Marsh Run flows into the Rappahannock River. In the estuarine portion of the Rappahannock River, there are several impairments including: recreational use (*E. coli* bacteria), fish consumption (PCBs in Fish Tissue), and aquatic life use (dissolved oxygen). These impairments are all located well below the outfalls of VA0091448.

b) Receiving Stream Water Quality Criteria

Part IX of 9 VAC 25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving streams, unnamed tributaries to Marsh Run, are located within Section 4 of the Rappahannock River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 3 details other water quality criteria applicable to the receiving stream.

Ammonia:

Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature and there is no reasonable potential to exceed the ammonia criteria. Therefore, it is staff's best professional judgement that ammonia criteria need not be developed for this discharge.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/l calcium carbonate). Since the 7Q10 of the receiving stream is zero, effluent data for hardness can be used to determine metals criteria. The average hardness of Outfall 001 effluent is 173 mg/l. The hardness-dependent metals criteria in Attachment 3 are based on this single effluent value.

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving streams, unnamed tributaries to Marsh Run, are located within Section 4 of the Rappahannock River Basin. This section has not been designated with any special standards.

d) Threatened or Endangered Species

Based on a Memorandum of Understanding (MOU) addressing VPDES permits regulating point source discharges into State waters, a review for species and habitat protected by the Virginia Endangered Species Act was requested by the Department of Conservation and Recreation (DCR) and the Department of Game and Inland Fisheries (DGIF). The Virginia DGIF Fish and Wildlife Information System Database was searched for records to determine if there are threatened or endangered species in the vicinity of the discharges from Outfall 001 and Outfall 002. The following threatened or endangered species were identified within a 2 mile radius of the discharges: Dwarf Wedgemussel, Upland Sandpiper, Loggerhead Shrike, Henslow's Sparrow, Bald Eagle, and Migrant Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharges.

The project review reports are available within the permit reissuance file.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the stream having a 7Q10 and 1Q10 of zero. At times, the stream is comprised entirely of effluent. It is staff's best professional opinion that the instream waste concentration is 100% during critical stream flows, and that the water quality of the stream will mirror the quality of the effluent. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development :

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from Attachment A, the permit application, and DMR submissions has been reviewed and determined to be suitable for evaluation.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

WLA	=	Wasteload allocation
C _o	=	In-stream water quality criteria
Q _e	=	Design flow
Q _s	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
f	=	Decimal fraction of critical flow
C _s	=	Mean background concentration of parameter in the receiving stream.

The water segments receiving the discharges via Outfall 001 and Outfall 002 are considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c) Effluent Limitations Toxic Pollutants - Outfall 001 and Outfall 002

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N/TKN:

Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature and there is no reasonable potential to exceed the ammonia criteria. Therefore, it is staff's best professional judgement that ammonia limits need not be developed for this discharge.

2) Total Residual Chlorine:

TRC limitations are established to prevent impacts (acute and chronic) to aquatic organisms. The TRC limitation is only applicable if there is a discharge from the filtered water storage tank (Outfall 001 only). Staff calculated WLAs for TRC using current critical flows. An instantaneous maximum limit of 0.016 mg/L is proposed based on the chronic aquatic life criterion in Virginia's water quality standards and the WLA derivation in Attachment 3.

d) Effluent Limitations and Monitoring – Conventional and Non-Conventional PollutantsOutfall 001

pH limitations are set at the water quality criteria. No changes to pH limitations are proposed.

Total Suspended Solids will be monitored, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation.

The semi-annual monitoring frequency (1/6M) for Flow, pH, TSS, and TPH shall be reduced to once annually (1/YR) with this reissuance. Contingent monitoring (CNTG) for TRC shall be carried forward with this reissuance. TRC shall be sampled once per discharge (1/Dis). Discharge is defined as an overflow or drainage from the filtered water storage tank. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

Outfall 002

pH limitations are set at the water quality criteria. No changes to pH limitations are proposed. A review of DMR data from 2006 – 2008 indicates that the facility exceeded the maximum pH limit of 9.0 S.U. for the July 1, 2007 – December 31, 2007 semi-annual monitoring period. Please see Section 27 of the Fact Sheet for additional discussion.

Total Suspended Solids will be monitored, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on best professional judgement taking in to consideration the industrial areas associated with this outfall and the reasonable potential for storm water contamination. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below this permit limit.

The facility requested via the reapplication package that all monitoring requirements for Outfall 002 be removed from the permit during this reissuance. Because a permit violation occurred in 2007, it is staff's best professional judgement that monitoring requirements remain in place with this reissuance. As such, the semi-annual monitoring frequency (1/6M) for Flow, pH, TSS, and TPH shall be carried forward with this reissuance.

Outfall 101

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below this permit limit.

The semi-annual monitoring frequency (1/6M) for Flow and TPH shall be reduced to once annually (1/YR) with this reissuance. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

Outfall 102

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below this permit limit.

The semi-annual monitoring frequency (1/6M) for Flow and TPH shall be reduced to once annually (1/YR) with this reissuance. A review of DMR data from 2006 – 2008 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following tables. Limits were established for pH, Total Petroleum Hydrocarbons, and Total Residual Chlorine.

Total Suspended Solids will be monitored for Outfalls 001 and 002, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual, and staff's best professional judgement based on the compliance history of the facility.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 (Storm Water Retention Pond / Pressure Washing Water / Vehicle Wash Water / Demineralized Water Storage / Treated (Filtered) Process Water Storage)

Average flow: 35.9 MG/Year (Variable)

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR***	Estimate
pH (S.U.)	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/YR***	Grab
Total Suspended Solids (mg/L)	2	N/A	NL	N/A	N/A	1/YR***	Grab
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR***	Grab
Total Residual Chlorine (mg/L)	2, 3	N/A	N/A	N/A	0.016 mg/L	1/Dis**	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements

2. Best Professional Judgement

3. Water Quality Standards

MGD = Million gallons per day.*N/A* = Not applicable.*NL* = No limit; monitor and report.*S.U.* = Standard units.*1/YR* = Once every twelve months.*1/Dis* = Once per discharge.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** Total Residual Chlorine (TRC) shall be sampled once per discharge. Discharge is defined as an overflow or drainage from the filtered water storage tank. The TRC sample shall be collected during the first hour of discharge and before the second hour begins.

*** The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

19b. Effluent Limitations/Monitoring Requirements: Outfall 002 (Storm Water Retention Pond / Switchyard / Gas Conditioning Area)

Average flow: Variable (Storm Water Dependent)

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NA	NL	N/A	N/A	NL	1/6M**	Estimate
pH (S.U.)	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/6M**	Grab
Total Suspended Solids (mg/L)	2	N/A	NL	N/A	N/A	1/6M**	Grab
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/6M**	Grab

The basis for the limitations codes are: *MGD* = Million gallons per day.*1/6M* = Once every six months.

1. Federal Effluent Requirements *N/A* = Not applicable.
2. Best Professional Judgement *NL* = No limit; monitor and report.
3. Water Quality Standards *S.U.* = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** The semi-annual monitoring periods shall be January 1 – June 30, and July 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (July 10 and January 10, respectively).

19c. Effluent Limitations/Monitoring Requirements: Outfall 101 (Fuel Station Area / Fuel Storage Tank Area)

Average flow: Variable

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR**	Estimate
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR**	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.*1/YR* = Once every twelve months.

1. Federal Effluent Requirements

N/A = Not applicable.

2. Best Professional Judgement

NL = No limit; monitor and report.

3. Water Quality Standards

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

19d. Effluent Limitations/Monitoring Requirements: Outfall 102 (Combustion Turbine Area)

Average flow: Variable

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR**	Estimate
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR**	Grab

The basis for the limitations codes are:

MGD = Million gallons per day.*1/YR* = Once every twelve months.

1. Federal Effluent Requirements

N/A = Not applicable.

2. Best Professional Judgement

NL = No limit; monitor and report.

3. Water Quality Standards

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

**The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

20. Other Permit Requirements :

- a) Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions :

- a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. The permittee shall revise the existing O&M Manual and submit for approval to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) by July 20, 2009. A description of storm water management controls and best management practices appropriate for the facility shall be included in the revised O&M Manual. A discussion of how storm water management controls and best management practices are implemented at the facility shall also be included. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- b) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9 VAC 25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.
- c) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent from Outfall 001 for the substances noted in Attachment A of this VPDES permit once during the fourth year from the permit's effective date. The data shall be submitted with the facility's next permit application package.
- d) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter;
 - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Board.
 - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) Five hundred micrograms per liter;
 - (2) One milligram per liter for antimony;
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Board.

- e) Materials Handling/Storage. 9 VAC 25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.
- f) Deionized Water Trailer Unit Discharge. The filter prime water and residual water can be discharged from the unit into the storm water retention pond during storage tank refill operations. There shall be no discharge of any filter backwash water.
- g) Filtered Water Discharge. The permittee is authorized to discharge overflow or drainage of water from the six million gallon filtered water tank. The water shall be discharged through Outfall 001 and all events shall be monitored. The effluent shall be sampled and limited in accordance with Part I.A.
- h) Vehicle Wash Water Discharge. The discharge of vehicle wash water from Outfall 001 is authorized under this permit. The permittee shall use only consumer available soaps and/or detergents. The permittee shall use the products in accordance with manufacturer instructions and/or recommendations. Soaps containing phosphates are prohibited in Virginia. Should the use of soaps and/or detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- i) Pressure Washing Discharge. The discharge of pressure washing water from Outfall 001 is authorized under this permit. The permittee shall provide the Department of Environmental Quality – Northern Regional Office (DEQ-NRO) with a description of the pressure washing detergents to be used, the Material Safety Data Sheet (MSDS) and any available aquatic toxicity information thirty (30) days prior to use. The use of pressure washing detergents prior to approval by DEQ is prohibited under this permit. Prior approval shall be obtained from DEQ before any changes are made to the pressure washing detergents being used. Should the use of pressure washing detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- j) No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:**a) Special Conditions:**

1. The turbine wash water special condition was removed from the permit during this reissuance based on a request by the facility. The facility does not land apply this wash water.
2. The new discharge submittal for Form 2F special condition was removed from the permit as it is no longer applicable.
3. A discussion of how storm water Best Management Practices shall be incorporated at the facility was added to the Operations Maintenance Manual special condition.
4. A Water Quality Criteria reopener was added to the permit.
5. A Water Quality Criteria Monitoring reopener was added to the permit.
6. A Vehicle Wash Water Discharge special condition was added to the permit.
7. A Pressure Washing Discharge special condition was added to the permit.
6. A No Discharge of Detergents, Surfactants, or Solvents to the Oil-Water Separators special condition was added to the permit.

b) Monitoring and Effluent Limitations:

1. Monitoring at Outfalls 001, 101 and 102 was reduced from semi-annually to annually based on facility compliance.
2. TPH methodology was added to Outfalls 001, 002, 101 and 102.
3. Storm water monitoring and reporting requirements were removed from the permit based on the following rationale.

The original Multi Sector General Permit (MSGP) for Storm Water Associated with Industrial Activities was published in the Federal Register on September 29, 1995. Section O of the Preamble to this regulation describes "Storm Water Discharges Associated with Industrial Activities from Steam Electric Power Generating Facilities, Including Coal Handling Areas" and addressed specific types of electric power generating facilities that are not covered under the definition of storm water discharges associated with industrial activity. The Preamble specifically states "heat captured co-generating facilities are not covered under the definition of storm water discharge associated with industrial activity".

An exclusion from the 2000 NPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities specific to Steam Electric Generating Facilities is located within Section 6.O.3.2. This section states "gas turbine stations...that are not contiguous to a steam electric power generating facility" and "heat captured co-generation facilities" are not covered by the NPDES MSGP for Storm Water Discharges Associated with Industrial Activity. This language is also included in the 2008 EPA MSGP.

The 2004 VPDES General Permit for Storm Water Discharges Associated with Industrial Activity (SWGP) specifically excludes from coverage ancillary facilities (e.g. fleet centers, gas turbine stations, and substations) that are not contiguous to a steam electric power generating facility. Heat capture/heat recovery combined cycle generation facilities are also not covered by this permit.

The combustion turbines at the facility operate in simple-cycle mode, that is, there is no steam generation cycle. As such, the facility is not subject to the storm water monitoring and reporting requirements outlined in Sector O of the VPDES SWGP. Additionally, the facility is regulated by EPA under the Oil Pollution Act and DEQ under the Aboveground Storage Tank Program. The facility also has an Integrated Contingency Plan comprised of an EPA required Facility Response Plan and Spill Prevention, Control and Countermeasures Plan plus a DEQ required Oil Discharge Contingency Plan.

4. The instantaneous maximum limit for total residual chlorine has changed from 0.019 mg/L to 0.016 mg/L.
5. Rationale for the TPH limit associated with Outfall 002 was revised to remove the reference to oil-water separator technology as this outfall does not have an oil-water separator.

24. Variances/Alternate Limits or Conditions: N/A**25. Public Notice Information:**

First Public Notice Date: March 11, 2009

Second Public Notice Date: March 18, 2009

Public Notice Information is required by 9 VAC 25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, sdmackert@deq.virginia.gov. See Attachment 4 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

The receiving stream is not listed on the current 303(d) list. However, there is a downstream impairment. Marsh Run at assessment unit VAN-E08R_MAH01A00 is listed as impaired for not meeting the recreational use water quality standard. Sufficient excursions from the instantaneous *E. coli* bacteria criterion (3 of 22 samples - 13.6%) were recorded at DEQ's ambient water quality monitoring station (3-MAH000.19) at the Route 651 crossing to assess this stream segment as not supporting of the recreation use goal for the 2008 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, from 1996 through 2004. The *E. coli* bacteria impairment was first listed in 2006.

A Total Maximum Daily Load (TMDL) for bacteria was approved by the U.S. EPA on January 23, 2008. The facility was not given a waste load allocation in the TMDL as it was not expected to discharge the pollutant of concern.

TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:

Previous Board Action(s): N/A

Staff Comments: A review of DMR data from 2006 – 2008 indicates that the facility exceeded the maximum pH limit of 9.0 S.U. for the July 1, 2007 – December 31, 2007 semi-annual monitoring period. On July 30, 2007 the facility notified DEQ that a pH reading of 9.6 S.U. was recorded at Outfall 002. Subsequent testing within the south storm water basin (prior to Outfall 002) showed a pH reading of 9.9 S.U. The facility conducted an intensive study to determine both the source of the high readings and whether the facility itself was contributing directly to these readings. A report summarizing the study findings was submitted to DEQ in January 2008. The report did not reveal a definitive cause for the high pH readings; however, it does not appear that facility operations are directly contributing. The complete pH study report can be found within the 2008 DMR file.

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in Attachment 5.

NPDES PERMIT RATING WORK SHEET

VPDES NO. : VA0091448

- ☒ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status Change
☐ Deletion

Facility Name: ODEC – Marsh Run Generation Facility

City / County: Fauquier County

Receiving Water: UTs to Marsh Run

Waterbody ID: VAN-E08R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
 2. A nuclear power Plant
 3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☐ YES; score is 700 (stop here)
☐ NO; (continue)

☐ Yes; score is 600 (stop here) ☒ NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4911 Other Sic Codes: _____
 Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input checked="" type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 0

Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50%	<input checked="" type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input type="checkbox"/> 53	30

Code Checked from Section A or B: 43

Total Points Factor 2: 20

NPDES PERMIT RATING WORK SHEET**FACTOR 3: Conventional Pollutants**

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)

	Code	Points
<input type="checkbox"/> < 100 lbs/day	1	0
<input type="checkbox"/> 100 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
<input type="checkbox"/> > 3000 lbs/day	4	20

Code Number Checked: N/A**Points Scored:** 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

	Code	Points
<input type="checkbox"/> < 100 lbs/day	1	0
<input type="checkbox"/> 100 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 5000 lbs/day	3	15
<input type="checkbox"/> > 5000 lbs/day	4	20

Code Number Checked: N/A**Points Scored:** 0C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)

	Code	Points
<input type="checkbox"/> < 300 lbs/day	1	0
<input type="checkbox"/> 300 to 1000 lbs/day	2	5
<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
<input type="checkbox"/> > 3000 lbs/day	4	20

Code Number Checked: N/A**Points Scored:** 0**Total Points Factor 3:** 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)☒ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: N/A**Total Points Factor 4:** 0

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

	Code	Points
<input checked="" type="checkbox"/> YES	1	10
<input type="checkbox"/> NO	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	0
<input type="checkbox"/> NO	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

Code Number Checked: A 1 B 1 C 2
Points Factor 5: A 10 + B 0 + C 0 = 10

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from factor 2) 43

Check appropriate facility HPRI code (from PCS):

HPRI#	Code	HPRI Score
<input type="checkbox"/> 1	1	20
<input type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input checked="" type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	20

Enter the multiplication factor that corresponds to the flow code: _____

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.6 = 0

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

Code Number Checked: A 4 B 2 C 2
Points Factor 6: A 0 + B 0 + C 0 = 0

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	20
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		30

S1. Is the total score equal to or greater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

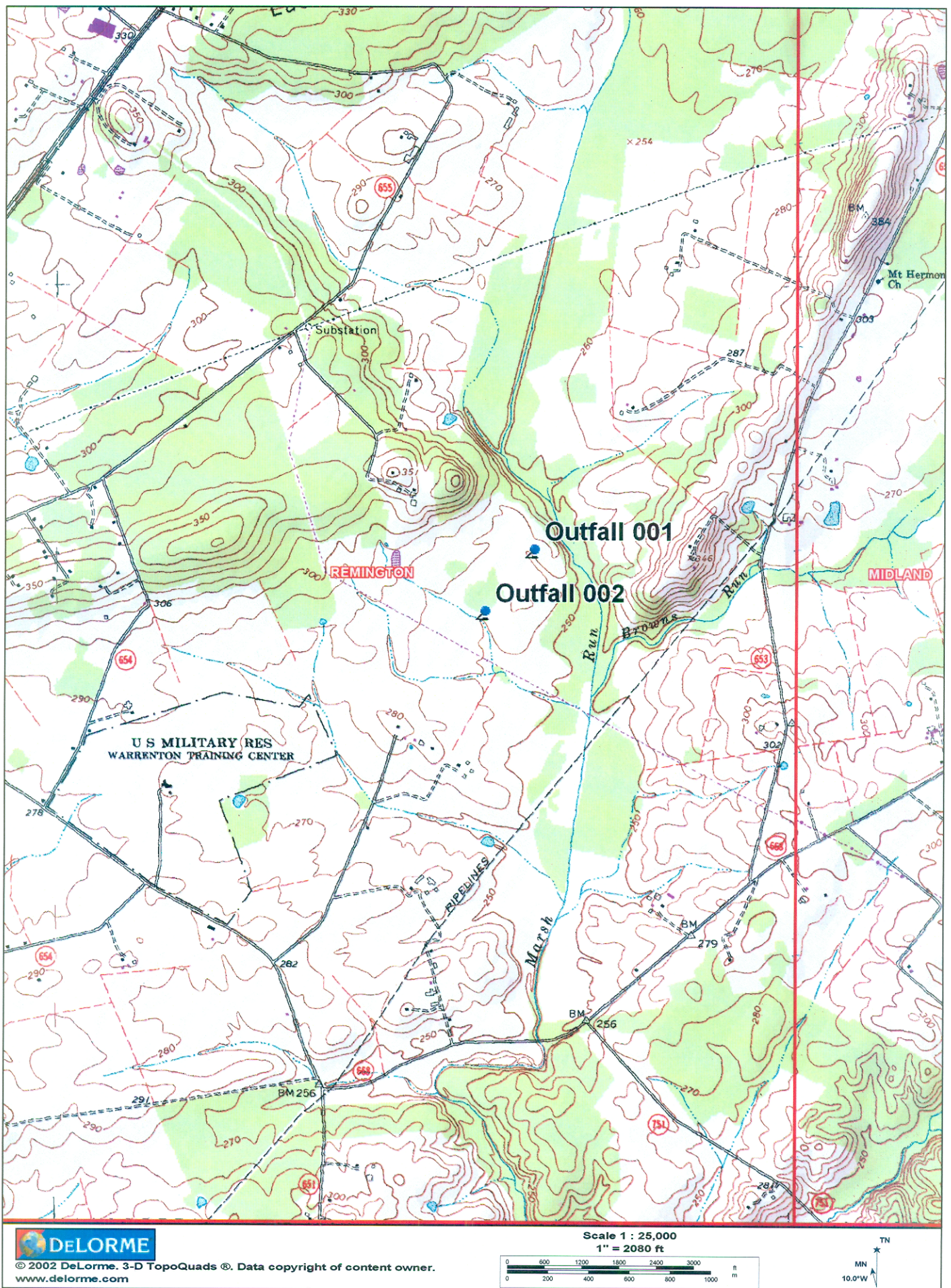
☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

NEW SCORE : 30

OLD SCORE : 30

Permit Reviewer's Name : Susan Mackert
Phone Number: (703) 583-3853
Date: February 6, 2009



FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: ODEC - Marsh Run

Permit No.: VA0091448

Receiving Stream: Marsh Run, UT

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) = mg/L
 90% Temperature (Annual) = deg C
 90% Temperature (Wet season) = deg C
 90% Maximum pH = SU
 10% Maximum pH = SU
 Tier Designation (1 or 2) = 1
 Public Water Supply (PWS) Y/N? = n
 Trout Present Y/N? = n
 Early Life Stages Present Y/N? = y

Stream Flows

1Q10 (Annual) = 0 MGD
 7Q10 (Annual) = 0 MGD
 30Q10 (Annual) = 0 MGD
 1Q10 (Wet season) = 0 MGD
 30Q10 (Wet season) = 0 MGD
 30Q5 = 0 MGD
 Harmonic Mean = 0 MGD
 Annual Average = 0 MGD

Mixing Information

Annual - 1Q10 Mix = 0 %
 - 7Q10 Mix = 0 %
 - 30Q10 Mix = 0 %
 Wet Season - 1Q10 Mix = 0 %
 - 30Q10 Mix = 0 %

Effluent Information

Mean Hardness (as CaCO3) = 173 mg/L
 90% Temp (Annual) = deg C
 90% Temp (Wet season) = deg C
 90% Maximum pH = 8.1 SU
 10% Maximum pH = SU
 Discharge Flow = 0.098 MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	2.7E+03	--	--	na	2.7E+03	--	--	--	--	--	--	--	--	--	--	na	2.7E+03
Acrolein	0	--	--	na	7.8E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Acrylonitrile ^c	0	--	--	na	6.6E+00	--	--	na	6.6E+00	--	--	--	--	--	--	--	--	--	--	na	6.6E+00
Aldrin ^c	0	3.0E+00	--	na	1.4E-03	3.0E+00	--	na	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	na	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	6.95E+00	2.10E+00	na	--	6.9E+00	2.1E+00	na	--	--	--	--	--	--	--	--	--	6.9E+00	2.1E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	6.95E+00	2.10E+00	na	--	6.9E+00	2.1E+00	na	--	--	--	--	--	--	--	--	--	6.9E+00	2.1E+00	na	--
Anthracene	0	--	--	na	1.1E+05	--	--	na	1.1E+05	--	--	--	--	--	--	--	--	--	--	na	1.1E+05
Antimony	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^c	0	--	--	na	7.1E+02	--	--	na	7.1E+02	--	--	--	--	--	--	--	--	--	--	na	7.1E+02
Benzidine ^c	0	--	--	na	5.4E-03	--	--	na	5.4E-03	--	--	--	--	--	--	--	--	--	--	na	5.4E-03
Benzo (a) anthracene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (b) fluoranthene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (k) fluoranthene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (a) pyrene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Bis(2-Chloroethyl) Ether	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	na	1.7E+05	--	--	na	1.7E+05	--	--	--	--	--	--	--	--	--	--	na	1.7E+05
Bromoform ^c	0	--	--	na	3.6E+03	--	--	na	3.6E+03	--	--	--	--	--	--	--	--	--	--	na	3.6E+03
Butylbenzylphthalate	0	--	--	na	5.2E+03	--	--	na	5.2E+03	--	--	--	--	--	--	--	--	--	--	na	5.2E+03
Cadmium	0	7.3E+00	1.7E+00	na	--	7.3E+00	1.7E+00	na	--	--	--	--	--	--	--	--	--	7.3E+00	1.7E+00	na	--
Carbon Tetrachloride ^c	0	--	--	na	4.4E+01	--	--	na	4.4E+01	--	--	--	--	--	--	--	--	--	--	na	4.4E+01
Chlordane ^c	0	2.4E+00	4.3E-03	na	2.2E-02	2.4E+00	4.3E-03	na	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	2.2E-02
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^c	0	--	--	na	3.4E+02	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
Chloroform ^c	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
2-Chloronaphthalene	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
2-Chlorophenol	0	--	--	na	4.0E+02	--	--	na	4.0E+02	--	--	--	--	--	--	--	--	--	--	na	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	8.9E+02	1.2E+02	na	--	8.9E+02	1.2E+02	na	--	--	--	--	--	--	--	--	--	8.9E+02	1.2E+02	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Copper	0	2.3E+01	1.4E+01	na	--	2.3E+01	1.4E+01	na	--	--	--	--	--	--	--	--	--	2.3E+01	1.4E+01	na	--
Cyanide	0	2.2E+01	5.2E+00	na	2.2E+05	2.2E+01	5.2E+00	na	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	2.2E+05
DDD ^c	0	--	--	na	8.4E-03	--	--	na	8.4E-03	--	--	--	--	--	--	--	--	--	--	na	8.4E-03
DDE ^c	0	--	--	na	5.9E-03	--	--	na	5.9E-03	--	--	--	--	--	--	--	--	--	--	na	5.9E-03
DDT ^c	0	1.1E+00	1.0E-03	na	5.9E-03	1.1E+00	1.0E-03	na	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	5.9E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Dibenz(a,h)anthracene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Dibutyl phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
Dichloromethane																					
(Methylene Chloride) ^c	0	--	--	na	1.6E+04	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
1,2-Dichlorobenzene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,3-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
1,4-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
3,3-Dichlorobenzidine ^c	0	--	--	na	7.7E-01	--	--	na	7.7E-01	--	--	--	--	--	--	--	--	--	--	na	7.7E-01
Dichlorobromomethane ^c	0	--	--	na	4.6E+02	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
1,2-Dichloroethane ^c	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
1,1-Dichloroethylene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,2-trans-dichloroethylene	0	--	--	na	1.4E+05	--	--	na	1.4E+05	--	--	--	--	--	--	--	--	--	--	na	1.4E+05
2,4-Dichlorophenol	0	--	--	na	7.9E+02	--	--	na	7.9E+02	--	--	--	--	--	--	--	--	--	--	na	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^c	0	--	--	na	3.9E+02	--	--	na	3.9E+02	--	--	--	--	--	--	--	--	--	--	na	3.9E+02
1,3-Dichloropropene	0	--	--	na	1.7E+03	--	--	na	1.7E+03	--	--	--	--	--	--	--	--	--	--	na	1.7E+03
Dieldrin ^c	0	2.4E-01	5.6E-02	na	1.4E-03	2.4E-01	5.6E-02	na	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	1.4E-03
Diethyl Phthalate	0	--	--	na	1.2E+05	--	--	na	1.2E+05	--	--	--	--	--	--	--	--	--	--	na	1.2E+05
Di-2-Ethylhexyl Phthalate ^c	0	--	--	na	5.9E+01	--	--	na	5.9E+01	--	--	--	--	--	--	--	--	--	--	na	5.9E+01
2,4-Dimethylphenol	0	--	--	na	2.3E+03	--	--	na	2.3E+03	--	--	--	--	--	--	--	--	--	--	na	2.3E+03
Dimethyl Phthalate	0	--	--	na	2.9E+06	--	--	na	2.9E+06	--	--	--	--	--	--	--	--	--	--	na	2.9E+06
Di-n-Butyl Phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
2,4 Dinitrophenol	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	7.65E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
2,4-Dinitrotoluene ^c	0	--	--	na	9.1E+01	--	--	na	9.1E+01	--	--	--	--	--	--	--	--	--	--	na	9.1E+01
Dioxin (2,3,7,8- tetrachlorodibenzo-p-dioxin) (ppq)	0	--	--	na	1.2E-06	--	--	na	na	--	--	--	--	--	--	--	--	--	--	na	na
1,2-Diphenylhydrazine ^c	0	--	--	na	5.4E+00	--	--	na	5.4E+00	--	--	--	--	--	--	--	--	--	--	na	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Endosulfan Sulfate	0	--	--	na	2.4E+02	--	--	na	2.4E+02	--	--	--	--	--	--	--	--	--	--	na	2.4E+02
Endrin	0	8.6E-02	3.6E-02	na	8.1E-01	8.6E-02	3.6E-02	na	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	8.1E-01
Endrin Aldehyde	0	--	--	na	8.1E-01	--	--	na	8.1E-01	--	--	--	--	--	--	--	--	--	--	na	8.1E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Fluoranthene	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
Fluorene	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^c	0	5.2E-01	3.8E-03	na	2.1E-03	5.2E-01	3.8E-03	na	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	2.1E-03
Heptachlor Epoxide ^c	0	5.2E-01	3.8E-03	na	1.1E-03	5.2E-01	3.8E-03	na	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	1.1E-03
Hexachlorobenzene ^c	0	--	--	na	7.7E-03	--	--	na	7.7E-03	--	--	--	--	--	--	--	--	--	--	na	7.7E-03
Hexachlorobutadiene ^c	0	--	--	na	5.0E+02	--	--	na	5.0E+02	--	--	--	--	--	--	--	--	--	--	na	5.0E+02
Hexachlorocyclohexane Alpha-BHC ^c	0	--	--	na	1.3E-01	--	--	na	1.3E-01	--	--	--	--	--	--	--	--	--	--	na	1.3E-01
Hexachlorocyclohexane Beta-BHC ^c	0	--	--	na	4.6E-01	--	--	na	4.6E-01	--	--	--	--	--	--	--	--	--	--	na	4.6E-01
Hexachlorocyclohexane Gamma-BHC ^c (Lindane)	0	9.5E-01	na	na	6.3E-01	9.5E-01	--	na	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	na	6.3E-01
Hexachlorocyclopentadiene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
Hexachloroethane ^c	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^c	0	--	--	na	2.6E+04	--	--	na	2.6E+04	--	--	--	--	--	--	--	--	--	--	na	2.6E+04
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	2.4E+02	2.7E+01	na	--	2.4E+02	2.7E+01	na	--	--	--	--	--	--	--	--	--	2.4E+02	2.7E+01	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	na	5.1E-02	1.4E+00	7.7E-01	na	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	na	5.1E-02
Methyl Bromide	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Monochlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
Nickel	0	2.9E+02	3.2E+01	na	4.6E+03	2.9E+02	3.2E+01	na	4.6E+03	--	--	--	--	--	--	--	--	2.9E+02	3.2E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
N-Nitrosodimethylamine ^c	0	--	--	na	8.1E+01	--	--	na	8.1E+01	--	--	--	--	--	--	--	--	--	--	na	8.1E+01
N-Nitrosodiphenylamine ^c	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
N-Nitrosodi-n-propylamine ^c	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB-1016	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1221	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1232	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1242	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1248	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1254	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1260	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB Total ^c	0	--	--	na	1.7E-03	--	--	na	1.7E-03	--	--	--	--	--	--	--	--	--	--	na	1.7E-03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	na	8.2E+01	7.7E-03	5.9E-03	na	8.2E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	8.2E+01
Phenol	0	--	--	na	4.6E+06	--	--	na	4.6E+06	--	--	--	--	--	--	--	--	--	--	na	4.6E+06
Pyrene	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
Radionuclides (pCi/l except Beta/Photon)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity Beta and Photon Activity (mrem/yr)	0	--	--	na	1.5E+01	--	--	na	1.5E+01	--	--	--	--	--	--	--	--	--	--	na	1.5E+01
Strontium-90	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Tritium	0	--	--	na	8.0E+00	--	--	na	8.0E+00	--	--	--	--	--	--	--	--	--	--	na	8.0E+00
Selenium	0	--	--	na	2.0E+04	--	--	na	2.0E+04	--	--	--	--	--	--	--	--	--	--	na	2.0E+04
Silver	0	2.0E+01	5.0E+00	na	1.1E+04	2.0E+01	5.0E+00	na	1.1E+04	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	1.1E+04
Sulfate	0	8.9E+00	--	na	--	8.9E+00	--	na	--	--	--	--	--	--	--	--	--	8.9E+00	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Tetrachloroethylene ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Thallium	0	--	--	na	1.1E+02	--	--	na	1.1E+02	--	--	--	--	--	--	--	--	--	--	na	1.1E+02
Toluene	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Total dissolved solids	0	--	--	na	6.3E+00	--	--	na	6.3E+00	--	--	--	--	--	--	--	--	--	--	na	6.3E+00
Toxaphene ^C	0	--	--	na	2.0E+05	--	--	na	2.0E+05	--	--	--	--	--	--	--	--	--	--	na	2.0E+05
Tributyltin	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2,4-Trichlorobenzene	0	7.3E-01	2.0E-04	na	7.5E-03	7.3E-01	2.0E-04	na	7.5E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	7.5E-03
1,1,2-Trichloroethane ^C	0	4.6E-01	6.3E-02	na	--	4.6E-01	6.3E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	6.3E-02	na	--
Trichloroethylene ^C	0	--	--	na	9.4E+02	--	--	na	9.4E+02	--	--	--	--	--	--	--	--	--	--	na	9.4E+02
2,4,6-Trichlorophenol ^C	0	--	--	na	4.2E+02	--	--	na	4.2E+02	--	--	--	--	--	--	--	--	--	--	na	4.2E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	8.1E+02	--	--	na	8.1E+02	--	--	--	--	--	--	--	--	--	--	na	8.1E+02
Vinyl Chloride ^C	0	--	--	na	6.5E+01	--	--	na	6.5E+01	--	--	--	--	--	--	--	--	--	--	na	6.5E+01
Zinc	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
	0	1.9E+02	1.9E+02	na	6.1E+01	1.9E+02	1.9E+02	na	6.1E+01	--	--	--	--	--	--	--	--	1.9E+02	1.9E+02	na	6.1E+01
	0	1.9E+02	1.9E+02	na	6.9E+04	1.9E+02	1.9E+02	na	6.9E+04	--	--	--	--	--	--	--	--	1.9E+02	1.9E+02	na	6.9E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	4.3E+03
Arsenic	9.0E+01
Barium	na
Cadmium	1.0E+00
Chromium III	7.0E+01
Chromium VI	6.4E+00
Copper	8.6E+00
Iron	na
Lead	1.6E+01
Manganese	na
Mercury	5.1E-02
Nickel	1.9E+01
Selenium	3.0E+00
Silver	3.5E+00
Zinc	7.5E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

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Facility = ODEC - Marsh Run
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = 0.1
samples/mo. = 1
samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = 10
Variance = 36
C.V. = 0.6
97th percentile daily values = 24.3341
97th percentile 4 day average = 16.6379
97th percentile 30 day average = 12.0605
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245856E-02
Average Weekly limit = 1.60883226245856E-02
Average Monthly Limit = 1.60883226245856E-02

The data are:

10

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated industrial wastewater and storm water into a water body in Fauquier County, Virginia.

PUBLIC COMMENT PERIOD: March 12, 2009 to 5:00 p.m. on April 10, 2009

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial issued by DEQ, under the authority of the State Water Control Board.

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Old Dominion Electric Cooperative, 4201 Dominion Boulevard, Glen Allen, VA 23060, VA0091448

NAME AND ADDRESS OF FACILITY: Old Dominion Electric Cooperative – Marsh Run Generation Facility, 12109 Lucky Hill Road, Remington, VA 22734

PROJECT DESCRIPTION: Old Dominion Electric Cooperative has applied for a reissuance of a permit for the private Old Dominion Electric Cooperative – Marsh Run Generation Facility. The applicant proposes to release treated industrial wastewater and storm water at an average rate of 35.9 Million Gallons into a water body. The facility proposes to release the treated industrial wastewater and storm water in unnamed tributaries to Marsh Run in Fauquier County in the Rappahannock River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Residual Chlorine, and Total Petroleum Hydrocarbons.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment.

Name: Susan Mackert

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3853 E-mail: sdmackert@deq.virginia.gov Fax: (703) 583-3821

**State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	ODEC – Marsh Run Generation Facility
NPDES Permit Number:	VA0091448
Permit Writer Name:	Susan Mackert
Date:	February 6, 2009

Major []

Minor [X]

Industrial [X]

Municipal []

I.A. Draft Permit Package Submittal Includes:

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?		X	
8. Whole Effluent Toxicity Test summary and analysis?		X	
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?		X	
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?		X	
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a “reasonable measure of ACTUAL production” for the facility (not design)?			X
5. Does the permit contain “tiered” limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?		X	
II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A

c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?		X	
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?		X	
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

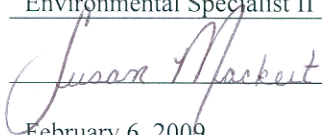
II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State’s standard practices?		X	

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?	X		
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?	X		
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41 <div style="display: flex; justify-content: space-between;"> <div> Duty to comply Duty to reapply Need to halt or reduce activity not a defense Duty to mitigate Proper O & M Permit actions </div> <div> Property rights Duty to provide information Inspections and entry Monitoring and records Signatory requirement Bypass Upset </div> <div> Reporting Requirements Planned change Anticipated noncompliance Transfers Monitoring reports Compliance schedules 24-Hour reporting Other non-compliance </div> </div>			
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Susan Mackert</u>
Title	<u>Environmental Specialist II</u>
Signature	<u></u>
Date	<u>February 6, 2009</u>